

Subject: INFO-HAMS Digest V89 #931
To: INFO-HAMS@WSMR-SIMTEL20.ARMY.MIL

INFO-HAMS Digest Sat, 25 Nov 89 Volume 89 : Issue 931

Today's Topics:

 * SpaceNews 27-Nov-89 *
 Every one uses them -how do they work?Matching networks-
 scanners and privacy (was Military callsigns)
 test message
 The "right to receive"

Date: 25 Nov 89 02:41:28 GMT
From: att!tsdiag!ka2qhd!kd2bd@ucbvax.Berkeley.EDU (John Magliacane)
Subject: * SpaceNews 27-Nov-89 *

Bulletin ID: SPC91127

SpaceNews

MONDAY NOVEMBER 27, 1989

SpaceNews originates at KD2BD in Wall Township, NJ, and is distributed weekly around the world. It is available for UNLIMITED distribution.

* SAREX NEWS *

Ron Parise, WA4SIR is scheduled to operate a 2-meter packet radio and voice transceiver from the Space Shuttle next year. Launch time for STS-35 is currently set for April 26, 1990 at 05:02 UTC.

Here is a preliminary Keplerian element set for STS-35. Note that these elements might change slightly prior to launch due to some new ascent performance predictions, and are not yet official:

Name : STS-35
Set # : JSC-004
Epoch : 90 116.2618056
Incl : 28.4867
RAAN : 120.8747
Eccn : 1.2355E-03
ArgPer : 10.1548
MeanAn : 355.7859
MeanMo : 15.71276482

Drag : 2.8E-04
Rev # : 2
SMA : 6736.21 Km

* UoSAT-D & E NEWS *

In a surprise move last week, the launch of the UoSAT-D & E spacecraft and the Microsats has been brought forward to 09 January 1990 - due to problems with the SUPERBIRD satellite that was scheduled for launch in mid-December. UoSAT-D & E are now undergoing pre-flight preparations before being shipped (with the launch integration team) to Paris on 30 Nov and then Kourou on 01 Dec in readiness for mating to the ASAP on 12 Dec.

UoSAT-D & E have completed RF tests in the screen room at UoS and have been exposed to low temperature tests in the Clean Room 'freezer' at -20 C. Marc Fouquet, designer of the CCD camera on-board UoSAT-E, has been taking 'benchmark' images for comparison with orbital images. Totally 'black' images have been collected to provide data for image processing using the Transputer Data Processing Experiment - also on UoSAT-E in collaboration with the European Space Agency. The additional solar simulation tests planned for next week have had to be cancelled due to the advance in departure date, and the spacecraft are now undergoing final cleaning and assembly in the Clean Room. Uplink & downlink calibrations in an RF anechoic chamber are planned for next week - providing that the chamber can be made available within the very tight schedule. Numerous visitors from several countries (as well as the UK) have recently come to UoS to view the new UoSAT spacecraft.

* NEWS FROM JAPAN *

Japanese Missions: MUSES-A and MOS-1B

ISAS (Institute of Space and Aeronautical Science) plans to launch MUSES-A, a Mu Space Engineering Spacecraft, on January 23 or later, which will attain a swing-by orbit of the moon, following an orbit synchronized with the period of the moon and changing its orbit by using the gravitational pull of the moon upon passing by.

NASDA (National Space Development Agency of Japan) plans to launch MOS-1B, a Marine observation satellite, on February 1 or later, which will observe oceanographic phenomena, in particular the color and temperature of the ocean surface. The satellite will be launched by H-1 rocket into a Sun-synchronous subrecurrent orbit at an altitude of about 900 km.

(Sources: the Asahi Shinbun, November 23, morning edition, and Science & Technology in Japan, August/September, 1988)

[Story by Yoshiro Yamada]

* PHASE III-D NEWS *

AMSAT-DL announced that they have received substantial funding for the Phase III-D satellite which, as outlined by DJ4ZC's paper presented at the 1988 AMSAT-UK Colloquium, will depart quite radically from its predecessors -- it is designed to have an RF output of 250 W, will weigh 200 to 400 kg and will be placed in a high-altitude Molniya orbit, similar to OSCAR-13.

* FEEDBACK WELCOMED *

Feedback regarding SpaceNews can be directed to the author (John) via any of the following paths:

UUCP : ucbvax!rutgers!petsd!tsdiag!ka2qhd!kd2bd
PACKET : KD2BD @ NN2Z

<<< Stay on course.....Say YES to Morse! >>>

* SpaceNews * >> Satellite News You Won't Find Everywhere Else << * SpaceNews *

<eof>

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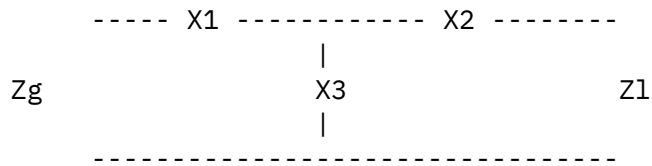
AMPR : KD2BD @ NN2Z (Neptune, NJ)
UUCP : ucbvax!rutgers!petsd!tsdiag!ka2qhd!kd2bd
"For every problem, there is one solution which is simple,
neat and wrong." -- H.L. Mencken

Date: 24 Nov 89 15:03:30 GMT
From: hpda!hpwala!hpnjld!eyg@ucbvax.Berkeley.EDU (Ed Gilbert tel 586-5903)
Subject: Every one uses them -how do they work?Matching networks-

> Can any one suggest the network best suited for antenna-matching and perhaps
> briefly explain why and how these networks can transform impedances and perhaps
> how one might go about home-brewing his own??

The most practical matching network for matching a wide range of unbalanced

loads to 50 ohms is the tee network. Schematically it looks like



This works best when X1 and X2 are the same type of reactance, and opposite of X3. Usually X1 and X2 are capacitors, X3 an inductor, which makes the overall circuit have a high-pass filter frequency response. If X1 and X2 are selected to have capacitive reactance of ~100 ohms at maximum C, and X3 ~100 ohms at maximum L, you'll be able to match loads anywhere from 1 ohm to over 1000 ohms at some combinations of the 3 reactances. Somewhere I have a C program which cranks out tables of Zl for 50 ohm Zg while sweeping X1, X2, and X3 over their ranges. I can dig this up and email to you if you're interested.

Ed Gilbert, WA2SRQ

Date: 25 Nov 89 02:56:11 GMT
From: vsi1!daver!lynx!neal@apple.com (Neal Woodall)
Subject: scanners and privacy (was Military callsigns)

In article <8911230804.AA04479@ucbvax.Berkeley.EDU> bill gunshannon writes:

>....Just for the sake of showing how little the public really knows about
>the technology they use on a day to day basis, I once overheard the
>beginning of a conversation between 2 family members that started with:
>"Don't tell this to anybody....." While every scanner freak within a
>8 mile radius listened in!!!!!!

I have an even better story than this.....

A friend and her husband live in Dallas. While I was visiting them about 6 months ago, I noticed that they had a cordless phone, and that they used it as their normal phone, in that the cordless was what they usually received and made calls with.

I mentined to them that the signals were easily received by anyone with a scanner and that they should not say anything on the phone they considered "private". My friend's response: "Oh, the salesman told us this phone has a special security code, so others cannot use our phone!"

It is obvious that she misunderstood completely what the security code is for....perhaps the salesman was either a fool or he knowingly misled them

when they purchased the phone. I used my scanner to show them that the signals were easily received on commercially available gear....they were shocked!

Two more people who now know the truth!!

Neal

Date: 25 Nov 89 09:30:26 GMT
From: usc!pollux.usc.edu!kjh@rutgers.edu (Kenneth J. Hendrickson)
Subject: test message

This is a test message. I'm trying out net access from my new account.

In the rare case that original ideas Kenneth J. Hendrickson N8DGN
are found here, I am responsible. Owen W328, E. Lansing, MI 48825
Internet: kjh@pollux.usc.edu UUCP: ...!uunet!pollux!kjh

Date: 25 Nov 89 02:40:44 GMT
From: vsi1!daver!lynx!neal@apple.com (Neal Woodall)
Subject: The "right to receive"

In article <6968@cbnewsm.ATT.COM> rma@mhgki.ATT.COM writes:

>Phil, there's no way to know if anyone is doing anything illegal in the
>privacy of their own home unless you break in and catch them in the act.
>Does that mean you can use illegal drugs, decode encrypted cable TV or
>tear the "do not remove" tags from mattresses with total disregard for
>the law?

I think that this argument is touching on other issues, such as the issue of what should be a crime, and what should not be considered criminal.

Personally, I think that any act that does not victimize any individual should not be considered a crime, and there should certainly not be legislation which defines as "criminal" acts where all parties are willing and consenting adults. This, of course, makes the use or sale of any drugs by consenting adults not crimes, makes prostitution not a crime, and makes gambling not a crime. Hey, this is supposed to be a "free country" right? Any act that does not victimize anyone should not be a crime....

Now, listining to any conversation transmitted over the airwaves is not in any way a "victimization" of another person. Perhaps an individual could use info overheard on the air to victimize another, and this victimization should be considered a crime. However, the simple act of listining to a conversation that is broadcast over the air is NOT in any way a "victimization" of another, and should not be a crime.

I this view, the decryption of scrambled TV signals (which are boradcast for commerical and profit motives) without permission of the sender DOES indeed consitute a "victimization" of the corporation that sends the signals out for obvious commercial purposes. However, in the case of signals sent over the air for obvious non-profit purposes (encrypted private or business communcations), the decryption of signals by an unauthorized person does NOT NECESSARILY constitute a "victimization" and should not by itself be considered a criminal act! And please, do NOT confuse a signal sent out for profit motives (such as encrypted TV signals) with a business communication.....even though business comunicatons may ultimately be "for the gain of profit", the signal itself is NOT the quantity or subject of the profit.

As far as removing the "DO NOT REMOVE" labels from mattresses....this is the ultimate example of a stupid law that criminalizes a trival act that most definitely should NOT be criminalized!

>If it is illegal to wiretap phones, then why should it not be illegal to >"airtap" cellular phones.

First of all, to tap into a phone, you must somehow gain unauthorized access to the property of the phone company. This is a victimization because it is a trespassing. Now, the hypothetical "airtap" that you suggest is just a simple reception of signals that are passing through your home and body....you don't need to tresspass on anyone else's property to get the signal, you simply turn on a radio and tune in the desired frequency. No victimization, no crime comitted.....

>.....but if it is not illegal it is de facto legal and therefore, by >default, approved. I don't like that idea much either.

Gee....maybe you do not like the Bill of Rights, either? This country is supposed to be "free".....I think that means that any act that is not a victimization is OK. Maybe you don't agree with this, but it is commonly accepted that if something is not illegal it IS necessarily legal. To believe that the only things that are "OK" are what the government allows is more like a totalitarian system, and not at all "free".

Neal

End of INFO-HAMS Digest V89 Issue #931
